

# Inprocess Return-On-Investment Project Case Study



United States Department of Energy  
Office of Environmental Management  
Fact Sheet

## Launderable Tarp Implementaion Savannah River Site, South Carolina

### Original Problem

During 1996 independent reviews/studies of SRS waste compositions was performed. The composite profile for SRS Dry Active Waste includes plastic/paper sheeting at 15.8% of the composition. One of recommendations was to eliminate selected disposable items and implement rewashables to reduce waste at SRS.

Benefits were estimated at >98,000 ft<sup>3</sup> savings \$4.5M based on LLW disposal rate of \$46/ft<sup>3</sup>. SRS tested and developed a nylon polyurethane-coated tarp as a replacement for these disposal items. Implementation has been successful in areas, but full-scale site-wide implementation has not been realized. In FY99 only 1700 washings per year have been achieved.



### The ROI Project Solution

SRS has a mature P2/Waste Minimization program. Future reduction in waste requires policy or process changes to continue to achieve the 10% waste reduction goals. Taking a fresh look at estimated savings indicate 33,000 ft<sup>3</sup>/yr could be avoided by utilizing launderable tarps in areas below ARA/HCA limits. Two sizes of Tarps have been placed in stores to address availability issues.

### DOE Monetary Benefits

<b>Cost</b>	<b>\$ 1M</b>
<b>Lifecycle Savings</b>	<b>\$20.6M</b>
<b>Return on Investment</b>	<b>392 %</b>

### Value Of Improvement

Studies completed by the Decontamination Facility realize a 4:1 labor efficiency to put down and take up a tarp versus taped paper/plastic layers (Video Training is available). Site-wide productivity savings are \$564,000 and reduced exposure (ALARA). The annual low level waste avoidance can be achieved supporting P2/Wmin goals of 10% reduction in LLW generation.

### Benefits At-A-Glance

- Avoids 33,000 ft<sup>3</sup> of LLW annually when 10,000 washings per year are achieved
- 4:1 labor efficiency in putting down and taking up tarp versus using paper & plastic.
- Over \$560,000 productivity savings and reduced exposure (ALARA).
- Safety issues on smooth floors resolved by site team effort

### Lifecycle Waste Reduction

<b>Life Cycle Waste Reduction</b>	<b>4,600 m<sup>3</sup></b>
<b>Operation Commencement Date</b>	<b>1/99</b>
<b>Project Useful Life (Years)</b>	<b>5</b>

## **Launderable Tarp Implementaion**

### **Savannah River Site, South Carolina**

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#### **Summary Data**

##### **TARP DESCRIPTION**

2 IN. WIDTH ON VELCRO, HEAT SEALABLE GRADE NYLON 200 DENIER FABRIC URETHANE COATED (G.T. 2 OZ/YD), YELLOW, WATERPROOF, VELCRO BOTH SIDES (TOP SIDE OF TARP ALONG ADJOINING SIDES HAVE LOOP & THE BOTTOM SIDE ALONG TWO ADJOINING SIDES HAVE HOOK), FIRE RETARDANT IAW NFPA 701 LARGE SCALE, CERTIFIED INCINERABLE. VENDOR PROPOSED EQUIVALENTS MUST BE EVALUATED BY WASTE MIN SUBCOMMITTEE PRIOR TO ACQUISTION (TIM COFFIELD 557-6316 PGR 11254, JOHN HARLEY 557-6332 PGR 15857). SRS NOTE: ACCEPTABLE FOR FLOOR COVERING USE WITH APPROPRIATE PRECAUTIONS

##### **STORES ITEM:**

**32-1307.00, 10'x10' Tarpaulin, \$64.00 ea.**

**32-1309.00, 5'x5' Tarpaulin, \$19.95 ea.**

##### **OPTIONAL TARP DESCRIPTION**

ABOVE DESCRITPION WITH THE ADDITION OF:  
W/BRASS GROMMETS (1/2 IN. DIA.) SPACED 2 FT. APART ALONG SIDES

##### **STORES ITEM:**

**32-1311.00, 10'x10' Tarpaulin, \$74.00 ea.**

**32-1312.00, 5'x5' Tarpaulin, \$22.95 ea.**

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